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SUMMARY

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Food and Agriculture Organization

THE ROLE OF AGRICULTURAL EXTENSION IN THE APPLICATION OF SCIENCE AND TECHNOLOGY

By Enrique A. SUMMERS,
Chief, Agricultural Education
and Extension Branch,
Rural Institutions and Services Division,
F.A.O.

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THE ROLE OF AGRICULTURAL EXTENSION IN THE APPLICATION OF SCIENCE AND TECHNOLOGY

by

Enrique A. Summers, Chief
Agricultural Education and Extension Branch
Rural Institutions and Services Division
F A O

1. Task of the Extension Services - The dissemination of information derived from agricultural science and technology is the primary purpose of extension work. Extension is an informal educational process directed to teach farmers to improve their production and raise their standard of living; the agricultural extension services are the organisms designed to perform this task. The fundamental objectives of extension are to promote and facilitate individual and group action towards greater and faster progress in the rural areas.

2. Dynamic Nature of Extension - Extension is a factor of agricultural and rural progress which uses the results of research to achieve its purposes. As a process which is complementary to research, extension must be dynamic. Extension endeavours to change the static situation which prevail in the rural areas into a dynamic one. The degree to which the extension service is able to do this is determined by the quality of its personnel, its working facilities, its relations with the sources of knowledge and the degree of cooperation it maintains with other rural services.

3. Extension is an Essential Complement to Research -

a) This concept is well understood and practiced in the agriculturally advanced countries. In the developing countries, normally a number of improved practices have been developed by research. However the application of these findings is very limited due to the fact that this information does not reach the mass of the agricultural population. The development of improved methods is not the final

purpose of applied research, the final objective must be the widespread application by farmers. Extension services are responsible for this ample dissemination of available information

b) Extension services take care of trials necessary to determine the local applicability of new discoveries.

c) Problems of the rural areas are brought to the attention of research stations by the extension services, thus developing a two way process which contributes to directly research work towards the present and most pressing problems of farmers.

d) As complementary activities, research and extension must participate mutually in the planning of their respective programs of work.

4. Utilization of Research Results from Other Countries - This is an important source of information for extension services. A large part of all agricultural improvement is of universal application or require slight modifications to be applied to local conditions. This calls for a close collaboration between research and extension and the establishment of combined programs of applied research and extension.

5. Accesibility of Available Information - From the education point of view, two important aspects of accesibility of information include:

a) The Accesibility of Information Sources : The small farmers are not in a position to maintain close contact with the experiment stations and institutions of a formal character. They require sources of information closer and better adapted to their environment, an opportunity which is offered to them by extension services.

b) The Way in Which the Available Information is Presented: Information coming from research centres is usually understandable to technicians and well educated persons. Written information is always useful if presented in the terms understood by the farmers and dealing with practical subject of interest to them. However, there are many areas with a majority of illiterate farmers where teaching can only be done by using objective teaching methods. The method most commonly used by

extension workers is the demonstration, in other words, teaching by doing and by showing results. Extension simplifies the information taking into consideration that their audience consists normally of small farmers with a minimum of education.

c) Extension, besides disseminating knowledge, assists the farmer in its application and promotes greater effort for progress. The application of agricultural science and technology can be effective only when the discoveries are accessible to the majority of farmers, to the aim sufficiently staffed and equipped extension services are required.

6. Desirability of Establishing a Unified Extension Service of a General Character - Normally, research institutes are not in a position to perform effective extension work. However, such institutes have a tendency to attempt themselves to disseminate their findings. This dissemination is inadequate both in coverage and intensity, and the presence of several specialized technicians working independently in one location gives way to controversial recommendations. Extension considers agricultural enterprises as a unit giving attention to all technical, economical and social problems, establishing adequate priorities in the development of the enterprise. The immediate and continued observation of the rural environment places the extension service in a position to determine the specific action required for speeding up progress. However, extension requires back-stopping by specialists to solve specific problems. Due to the special nature of extension work and to the scarcity of personnel and of financial resources, particularly in the developing countries, a unified extension service of a general character is the most advisable approach to effective extension work.

7. Factors which determine the Effectiveness of Extension Services:

a) Training of Personnel: This is the most important factor. To remedy the scarcity of trained personnel regional and national extension centers have been organized, and it is estimated that the latter should be intensified. The following measures may contribute to the training of extension personnel:

(i) National agricultural extension training centers.

(ii) Periodical refresher courses on technical subject matter.

(iii) Introduction of courses in the social sciences and extension education in the programs of study of faculties and schools of agriculture.

(iv) Cooperation of faculties and schools of agriculture and extension services in providing in-service training to groups of students during the vacation periods.

b) Equipment and Supplies for Extension Offices - Extension workers should have adequate transportation facilities, equipment and materials necessary to cover properly their area and to conduct the demonstrations and other activities essential for performing their work effectively. The absence of these elements are deficiencies frequently found in the developing countries, resulting in semi-active and ineffective extension services.

c) Assistance of Specialists: A body of specialists should be attached to the extension services or specialized assistance should come from the research centers by establishing an adequate system of cooperation between both institutions.

d) Establishment or Reinforcement of Rural Youth Programs: These programs are a useful complement to formal education. Experience in many countries shows that rural youth is most receptive to extension work and that rural youth work contributes strongly to changing attitudes of adults.

e) Expansion of Extension Services: Extension work should not be confined to the most important or better developed agricultural areas. Sufficient attention should be given to isolate and less favored areas, a policy which will contribute to a balanced development of the rural population. Extension services should expand gradually and national extension programs should consider covering all the agricultural areas of a country. If the proper and widespread application of agricultural science and technology is recognized as necessary for the economic development of countries depending mainly on agriculture, as is the case in less developed countries, then extension services can be considered as fundamental for the development of the majority of countries of the world.

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